

CLAIMS

1. A movable body rental system having a plurality of movable body apparatuses and a movable body management apparatus to manage said plurality of movable body apparatuses, wherein

each of said plurality of movable body apparatuses comprises:

authentication information transmission means for transmitting authentication information to said movable body management apparatus;

authentication result information reception means for receiving authentication result information returned in response to said authentication information;

lock means for preventing the use of said movable body apparatus;

lock control means for controlling said lock means according to said authentication result information received by said authentication result information reception means;

distance measuring means for measuring mileage;

distance information transmission means for transmitting information indicating mileage measured by said distance measuring means to said movable body management apparatus;

time measuring means for measuring the driving time; and

time information transmission means for transmitting information indicating the driving time measured by said time measuring means to said movable body management apparatus, wherein

said movable body management apparatus comprises:

authentication information reception means for receiving said authentication information from said movable body apparatus;

authentication result information transmission means for transmitting authentication result information corresponding to said authentication information received by said authentication information reception means to said movable body apparatus;

distance information reception means for receiving information indicating said mileage from said movable body apparatus;

time information reception means for receiving information indicating said driving time from said movable body apparatus;

fee calculation means for calculating a fee for said movable body apparatus according to said mileage received by said distance information reception means and said driving time received by said time information reception means; and

settlement means for performing settlement processing according to the use of said movable body apparatus based on a calculation result of said fee calculation means.

2. The movable body rental system according to claim 1, wherein

said movable body apparatus includes payable information acceptance means for accepting payable information;

said authentication information transmission means transmits said payable

information accepted by said payable information acceptance means as said authentication information to said movable body management apparatus;

said lock control means controls said lock means to release the lock when receiving said permission information as said authentication result information from said movable body management apparatus via said authentication result information reception means;

said movable body management apparatus includes determination means for determining whether payment is possible based on said payable information as said authentication information received by said authentication information reception means from said movable body apparatus; and

said authentication result information transmission means, when said determination means determines payment is possible, transmits permission information as said authentication result information to said movable body apparatus.

3. The movable body rental system according to claim 2, wherein

said movable body management apparatus comprises:

authentication request reception means for receiving an authentication request including identification information about a user transmitted via a mobile communication terminal owned by said user of said movable body apparatus; and

authentication processing means for performing authentication processing based on said identification information included in said authentication request received by said authentication request reception means, and wherein

said authentication result information transmission means of said movable body management apparatus transmits said permission information when said authentication processing means grants authentication and said determination means determines payment is possible.

4. The movable body rental system according to claim 1, wherein

said movable body management apparatus comprises:

authentication request reception means for receiving an authentication request including identification information about a user transmitted via a mobile communication terminal owned by said user of said movable body apparatus; and

authentication processing means for performing authentication processing based on said identification information included in said authentication request received by said authentication request reception means, and wherein

said authentication result information transmission means of said movable body management apparatus transmits said permission information when said authentication processing means grants authentication.

5. The movable body rental system according to claim 1, wherein said fee calculation means of said movable body management apparatus differentiates said fee according to a position where said movable body apparatus is returned.

6. The movable body rental system according to claim 1, wherein said fee calculation means of said movable body management apparatus sets a higher fee when said movable body apparatus is returned to a position different from a predetermined

return position than when it is returned to said return position.

7. The movable body rental system according to claim 1, wherein said fee calculation means of said movable body management apparatus calculates said fee based on said driving time and an average driving time which is determined according to said mileage.

8. A movable body rental system having a plurality of movable body apparatuses and a movable body management apparatus to manage said plurality of movable body apparatuses, wherein

each of said plurality of movable body apparatuses comprises:

authentication information transmission means for transmitting authentication information to said movable body management apparatus;

authentication result information reception means for receiving authentication result information returned in response to said authentication information;

lock means for preventing the use of said movable body apparatus;

lock control means for controlling said lock means according to said authentication result information received by said authentication result information reception means;

current position detection means for detecting a current position at a specified time interval; and

current position transmission means for transmitting information indicating a current position each time said current position detection means detects it, and wherein

said movable body management apparatus comprises:

authentication information reception means for receiving said authentication information from said movable body apparatus;

authentication result information transmission means for transmitting an authentication result corresponding to said authentication information received by said authentication information reception means to said movable body apparatus;

current position reception means for receiving said current positional information from said movable body apparatus;

mileage measuring means for measuring mileage of said movable body apparatus by using said current positional information received by said current position reception means;

driving time measuring means for measuring the driving time of said movable body apparatus according to said current positional information received by said current position reception means;

fee calculation means for calculating a fee for said movable body apparatus according to said mileage measured by said mileage measuring means and said driving time measured by said driving time measuring means; and

settlement means for performing settlement processing according to the use of said movable body apparatus based on a calculation result of said fee calculation means.

9. The movable body rental system according to claim 8, wherein

said movable body apparatus includes payable information acceptance means for accepting payable information;

said authentication information transmission means transmits said payable information accepted by said payable information acceptance means as said authentication information to said movable body management apparatus;

said lock control means controls said lock means to release the lock when receiving said permission information as said authentication result information from said movable body management apparatus via said authentication result information reception means;

said movable body management apparatus includes determination means for determining whether payment is possible based on said payable information as said authentication information received by said authentication information reception means from said movable body apparatus; and

said authentication result information transmission means, when said determination means determines payment is possible, transmits permission information as said authentication result information to said movable body apparatus.

10. The movable body rental system according to claim 9, wherein

said movable body management apparatus comprises:

authentication request reception means for receiving an authentication request including identification information about a user transmitted via a mobile communication terminal owned by said user of said movable body apparatus; and

authentication processing means for performing authentication processing based on said identification information included in said authentication request received by said authentication request reception means, and wherein

said authentication result information transmission means of said movable body management apparatus transmits said permission information when said authentication processing means grants authentication and said determination means determines payment is possible.

11. The movable body rental system according to claim 8, wherein

said movable body management apparatus comprises:

authentication request reception means for receiving an authentication request including identification information about a user transmitted via a mobile communication terminal owned by said user of said movable body apparatus; and

authentication processing means for performing authentication processing based on said identification information included in said authentication request received by said authentication request reception means, and wherein

said authentication result information transmission means of said movable body management apparatus transmits said permission information when said authentication processing means grants authentication.

12. The movable body rental system according to claim 8, wherein said fee calculation means of said movable body management apparatus differentiates said fee according to a position where said movable body apparatus is returned.

13. The movable body rental system according to claim 12, wherein said fee calculation means of said movable body management apparatus sets a higher fee when said movable body apparatus is returned to a position different from a predetermined return position than when it is returned to said return position.

14. The movable body rental system according to claim 8, wherein said fee calculation means of said movable body management apparatus calculates said fee based on said driving time and an average driving time which is determined according to said mileage.

15. A movable body management system having a movable body apparatus and a movable body management apparatus, wherein

said movable body apparatus comprises:

current position measuring means for measuring a current position; and

current position transmission means for transmitting said current positional information obtained by said current position measuring means, and wherein

said movable body management apparatus comprises:

current position reception means for receiving current positional information about said movable body apparatus transmitted from said current position transmission means of said movable body apparatus;

provision request reception means for receiving a provision request for positional information about a nearby movable body apparatus transmitted from a user's mobile communication terminal; and

said mobile communication terminal used by a user who wants to use said movable body apparatus comprises:

current position detection means for detecting a current position of a local apparatus; and

transmission means for transmitting said current position detected by said current position detection means, wherein

said current position reception means in said movable body management apparatus is also capable of receiving said current position from said mobile communication terminal, and wherein

said positional information transmission means retrieves a movable body nearest to said mobile communication terminal based on said current position of said mobile communication terminal received by said current position reception means.

18. The movable body management system according to claim 15, wherein

said movable body apparatus comprises:

authentication information transmission means for transmitting authentication information to said movable body management apparatus;

authentication result information reception means for receiving authentication result information returned in response to said authentication information;

lock means for preventing the use of said movable body apparatus;

lock control means for controlling said lock means according to said authentication result information received by said authentication result information reception means, and wherein

said movable body management apparatus comprises:

authentication information reception means for receiving said authentication information from said movable body apparatus; and

authentication result information transmission means for transmitting authentication result information corresponding to said authentication information received by said authentication information reception means to said movable body apparatus.

19. The movable body management system according to claim 18, wherein

said movable body apparatus includes payable information acceptance means for accepting payable information;

said authentication information transmission means transmits said payable information accepted by said payable information acceptance means as said authentication information to said movable body management apparatus;

said lock control means controls said lock means to release the lock when receiving said permission information as said authentication result information from said movable body management apparatus via said authentication result information reception means;

said movable body management apparatus includes determination means for determining whether payment is possible based on said payable information as said authentication information received by said authentication information reception means from said movable body apparatus; and

said authentication result information transmission means, when said

determination means determines payment is possible, transmits permission information as said authentication result information to said movable body apparatus.

20. The movable body management system according to claim 19, wherein

said movable body management apparatus comprises:

authentication request reception means for receiving an authentication request including identification information about a user transmitted via a mobile communication terminal owned by said user of said movable body apparatus; and

authentication processing means for performing authentication processing based on said identification information included in said authentication request received by said authentication request reception means, and wherein

said authentication result information transmission means of said movable body management apparatus transmits said permission information when said authentication processing means grants authentication and said determination means determines payment is possible.

21. The movable body management system according to claim 18, wherein

said movable body management apparatus comprises:

authentication request reception means for receiving an authentication request including identification information about a user transmitted via a mobile communication terminal owned by said user of said movable body apparatus; and

authentication processing means for performing authentication processing based on said identification information included in said authentication request received by

said authentication request reception means, and wherein

said authentication result information transmission means of said movable body management apparatus transmits said permission information when said authentication processing means grants authentication.

22. A movable body apparatus in a movable body rental system comprising said movable body apparatus to be rented and a movable body management apparatus to manage said movable body apparatus, said movable body apparatus having:

authentication information transmission means for transmitting authentication information to said movable body management apparatus;

authentication result information reception means for receiving authentication result information returned in response to said authentication information;

lock means for preventing the use of said movable body apparatus;

lock control means for controlling said lock means according to said authentication result information received by said authentication result information reception means;

distance measuring means for measuring mileage;

distance information transmission means for transmitting information indicating mileage measured by said distance measuring means to said movable body management apparatus;

time measuring means for measuring the driving time; and

time information transmission means for transmitting information indicating the

driving time measured by said time measuring means to said movable body management apparatus.

23. The movable body apparatus according to claim 22, comprising:

payable information acceptance means for accepting payable information, wherein said authentication information transmission means transmits said payable information accepted by said payable information acceptance means as said authentication information to said movable body management apparatus; and

said lock control means controls said lock means to release the lock when receiving said permission information as said authentication result information from said movable body management apparatus via said authentication result information reception means.

24. A movable body apparatus in a movable body rental system comprising said movable body apparatus to be rented and a movable body management apparatus to manage said movable body apparatus, said movable body apparatus having:

authentication information transmission means for transmitting authentication information to said movable body management apparatus;

authentication result information reception means for receiving authentication result information returned in response to said authentication information;

lock means for preventing the use of said movable body apparatus;

lock control means for controlling said lock means according to said authentication result information received by said authentication result information

reception means;

current position detection means for detecting a current position at a specified time interval; and

current position transmission means for transmitting information indicating a current position each time said current position detection means detects it.

25. The movable body apparatus according to claim 24, comprising:

payable information acceptance means for accepting payable information, wherein said authentication information transmission means transmits said payable information accepted by said payable information acceptance means as said authentication information to said movable body management apparatus; and

said lock control means controls said lock means to release the lock when receiving said permission information as said authentication result information from said movable body management apparatus via said authentication result information reception means.

26. A movable body management apparatus in a movable body rental system comprising a movable body apparatus to be rented and a movable body management apparatus to manage said movable body apparatus, said movable body management apparatus having:

authentication information reception means for receiving authentication information from said movable body apparatus;

authentication result information transmission means for transmitting

authentication result information corresponding to said authentication information received by said authentication information reception means to said movable body apparatus;

distance information reception means for receiving information indicating said mileage from said movable body apparatus;

time information reception means for receiving information indicating said driving time from said movable body apparatus;

fee calculation means for calculating a fee for said movable body apparatus according to said mileage received by said distance information reception means and said driving time received by said time information reception means; and

settlement means for performing settlement processing according to the use of said movable body apparatus based on a calculation result of said fee calculation means.

27. The movable body management apparatus according to claim 26, comprising:

determination means for determining whether payment is possible based on said payable information as said authentication information received by said authentication information reception means from said movable body apparatus, wherein

said authentication result information transmission means, when said determination means determines payment is possible, transmits permission information as said authentication result information to said movable body apparatus.

28. The movable body management apparatus according to claim 27, comprising:

authentication request reception means for receiving an authentication request including identification information about a user transmitted via a mobile communication terminal owned by said user of said movable body apparatus; and

authentication processing means for performing authentication processing based on said identification information included in said authentication request received by said authentication request reception means, wherein

said authentication result information transmission means transmits said permission information when said authentication processing means grants authentication and said determination means determines payment is possible.

29. The movable body management apparatus according to claim 26, comprising:

authentication request reception means for receiving an authentication request including identification information about a user transmitted via a mobile communication terminal owned by said user of said movable body apparatus; and

authentication processing means for performing authentication processing based on said identification information included in said authentication request received by said authentication request reception means, wherein

said authentication result information transmission means transmits said permission information when said authentication processing means grants authentication.

30. The movable body management apparatus according to claim 26, wherein said fee calculation means differentiates said fee according to a position where said

movable body apparatus is returned.

31. The movable body management apparatus according to claim 30, wherein said fee calculation means sets a higher fee when said movable body apparatus is returned to a position different from a predetermined return position than when it is returned to said return position.

32. The movable body management apparatus according to claim 26, wherein said fee calculation means calculates said fee based on said driving time and an average driving time which is determined according to said mileage.

33. A movable body management apparatus in a movable body rental system comprising a movable body apparatus to be rented and a movable body management apparatus to manage said movable body apparatus, said movable body management apparatus having:

authentication information reception means for receiving authentication information from said movable body apparatus;

authentication result information transmission means for transmitting an authentication result corresponding to said authentication information received by said authentication information reception means to said movable body apparatus;

current position reception means for receiving said current positional information from said movable body apparatus;

mileage measuring means for measuring mileage of said movable body apparatus by using said current positional information received by said current position

reception means;

driving time measuring means for measuring the driving time of said movable body apparatus according to said current positional information received by said current position reception means;

fee calculation means for calculating a fee for said movable body apparatus according to said mileage measured by said mileage measuring means distance information reception means and said driving time measured by said driving time measuring means; and

settlement means for performing settlement processing according to the use of said movable body apparatus based on a calculation result of said fee calculation means.

34. The movable body management apparatus according to claim 33, comprising:

determination means for determining whether payment is possible based on said payable information as said authentication information received by said authentication information reception means from said movable body apparatus, wherein

said authentication result information transmission means, when said determination means determines payment is possible, transmits permission information as said authentication result information to said movable body apparatus.

35. The movable body management apparatus according to claim 34, comprising:

authentication request reception means for receiving an authentication request including identification information about a user transmitted via a mobile

communication terminal owned by said user of said movable body apparatus; and

authentication processing means for performing authentication processing based on said identification information included in said authentication request received by said authentication request reception means, wherein

said authentication result information transmission means of said movable body management apparatus transmits said permission information when said authentication processing means grants authentication and said determination means determines payment is possible.

36. The movable body management apparatus according to claim 33, comprising:

authentication request reception means for receiving an authentication request including identification information about a user transmitted via a mobile communication terminal owned by said user of said movable body apparatus; and

authentication processing means for performing authentication processing based on said identification information included in said authentication request received by said authentication request reception means, and wherein

said authentication result information transmission means transmits said permission information when said authentication processing means grants authentication.

37. The movable body management apparatus according to claim 33, comprising:

said fee calculation means differentiates said fee according to a position where said movable body apparatus is returned.

38. The movable body management apparatus according to claim 37, comprising: said fee calculation means sets a higher fee when said movable body apparatus is returned to a position different from a predetermined return position than when it is returned to said return position.

39. The movable body management apparatus according to claim 33, wherein said fee calculation means calculates said fee based on said driving time and an average driving time which is determined according to said mileage.

40. A movable body apparatus in a movable body management system comprising said movable body apparatus to be rented and a movable body management apparatus to manage said movable body apparatus, said movable body apparatus having:

retrieval information reception means for receiving movable body retrieval information from a user's mobile communication terminal; and

notification means for notifying said user of a local apparatus position when said retrieval information reception means receives movable body retrieval information addressed to the local apparatus.

41. The movable body apparatus according to claim 40, comprising:

authentication information transmission means for transmitting authentication information to said movable body management apparatus;

authentication result information reception means for receiving authentication result information returned in response to said authentication information;

lock means for preventing the use of said movable body apparatus;

permission information reception means for receiving permission information from said movable body management apparatus; and

lock control means for releasing a lock by controlling said lock means when said permission information reception means receives said permission information.

42. The movable body apparatus according to claim 40, comprising

payable information acceptance means for accepting payable information, wherein said authentication information transmission means transmits said payable information accepted by said payable information acceptance means as said authentication information to said movable body management apparatus; and

said lock control means controls said lock means to release the lock when receiving said permission information as said authentication result information from said movable body management apparatus via said authentication result information reception means.

43. A movable body management apparatus in a movable body management system comprising a movable body apparatus to be rented and a movable body management apparatus to manage said movable body apparatus, said movable body management apparatus having:

current position reception means for receiving a current position of said movable body apparatus transmitted from said movable body apparatus;

provision request reception means for receiving a provision request for positional information about a nearby movable body transmitted from a user's mobile

communication terminal; and

positional information transmission means for transmitting information indicating a current position of a nearby movable body apparatus to said mobile communication terminal transmitting said provision request when said provision request reception means receives said provision request.

44. The movable body management apparatus according to claim 43, wherein said positional information transmission means transmits information indicating a current position of said movable body apparatus and movable body retrieval information for retrieving said movable body apparatus.

45. The movable body management apparatus according to claim 43, wherein said current position reception means is also capable of receiving said current position from a mobile communication terminal used by a user who wants to use said movable body apparatus; and

said positional information transmission means retrieves a movable body nearest to said mobile communication terminal based on said current position of said mobile communication terminal received by said current position reception means.

46. The movable body management apparatus according to claim 43, comprising authentication information reception means for receiving said authentication information from said movable body apparatus; and

authentication result information transmission means for transmitting authentication result information corresponding to said authentication information

received by said authentication information reception means to said movable body apparatus.

47. The movable body management apparatus according to claim 46, comprising determination means for determining whether payment is possible based on said payable information as said authentication information received by said authentication information reception means from said movable body apparatus, wherein

said authentication result information transmission means, when said determination means determines payment is possible, transmits permission information as said authentication result information to said movable body apparatus.

48. The movable body management apparatus according to claim 47, comprising authentication request reception means for receiving an authentication request including identification information about a user transmitted via a mobile communication terminal owned by said user of said movable body apparatus; and

authentication processing means for performing authentication processing based on said identification information included in said authentication request received by said authentication request reception means, and wherein

said authentication result information transmission means of said movable body management apparatus transmits said permission information when said authentication processing means grants authentication and said determination means determines payment is possible.

49. The movable body management apparatus according to claim 46, comprising

authentication request reception means for receiving an authentication request including identification information about a user transmitted via a mobile communication terminal owned by said user of said movable body apparatus; and

authentication processing means for performing authentication processing based on said identification information included in said authentication request received by said authentication request reception means, and wherein

said authentication result information transmission means of said movable body management apparatus transmits said permission information when said authentication processing means grants authentication.

50. A movable body rental method for a movable body rental system having a plurality of movable body apparatuses and a movable body management apparatus to manage said plurality of movable body apparatuses, wherein

each of said plurality of movable body apparatuses comprises the steps of:

transmitting authentication information to said movable body management apparatus;

receiving authentication result information returned in response to said authentication information;

controlling a lock to unlock a relevant movable body apparatus when authentication result information received at said step of receiving authentication result information indicates successful authentication;

measuring mileage;

transmitting information indicating mileage measured at said step of measuring mileage to said movable body management apparatus;

measuring a driving time; and

transmitting information indicating the driving time measured at said step of measuring a driving time to said movable body management apparatus, wherein

said movable body management apparatus comprises the steps of:

receiving said authentication information from said movable body apparatus;

transmitting authentication result information corresponding to said authentication information received at said step of receiving authentication information to said movable body apparatus;

receiving information indicating said mileage from said movable body apparatus;

receiving information indicating said driving time from said movable body apparatus;

calculating a fee of said movable body apparatus according to said mileage received at said step of receiving distance information and said driving time received at said step of receiving time information; and

performing settlement processing for a fee of said movable body apparatus based on a result of said step of calculating a fee.

51. The movable body rental method according to claim 50, wherein

said movable body apparatus has a step of accepting input of payable

information;

said step of transmitting authentication information transmits said payable information accepted at said step of accepting payable information as said authentication information to said movable body management apparatus;

said step of controlling a lock releases it when said step of receiving authentication result information receives said permission information as said authentication result information from said movable body management apparatus;

said movable body management apparatus has a step of determining whether payment is possible based on said payable information as said authentication information received at said step of receiving authentication information from said movable body apparatus; and

said step of transmitting authentication result information transmits permission information as said authentication result information to said movable body apparatus when said determination step determines that payment is possible.

52. The movable body rental method according to claim 50, wherein

said movable body management apparatus comprises the steps of:

receiving an authentication request including identification information about a user transmitted via a mobile communication terminal owned by said user of said movable body apparatus; and

performing authentication processing based on said identification information included in said authentication request received at said step of receiving an

authentication request, wherein

said step of transmitting authentication result information of said movable body management apparatus transmits said permission information when said step of performing authentication processing grants authentication and said determination step determines payment is possible.

53. The movable body rental method according to claim 50, wherein

said movable body management apparatus comprises the steps of:

receiving an authentication request including identification information about a user transmitted via a mobile communication terminal owned by said user of said movable body apparatus; and

performing authentication processing based on said identification information included in said authentication request received at said step of receiving an authentication request, wherein

said step of transmitting authentication result information of said movable body management apparatus transmits said permission information when said step of performing authentication processing grants authentication.

54. The movable body rental method according to claim 50, wherein said step of calculating a fee for said movable body management apparatus differentiates said fee according to a position where said movable body apparatus is returned.

55. The movable body rental method according to claim 54, wherein said step of calculating a fee for said movable body management apparatus sets a higher fee when

said movable body apparatus is returned to a position different from a predetermined return position than when it is returned to said return position.

56. The movable body rental method according to claim 50, wherein said step of calculating a fee for said movable body management apparatus calculates said fee based on said driving time and an average driving time which is determined according to said mileage.

57. A movable body rental method for a movable body rental system having a plurality of movable body apparatuses and a movable body management apparatus to manage said plurality of movable body apparatuses, wherein

each of said plurality of movable body apparatuses comprises the steps of:

transmitting authentication information to said movable body management apparatus;

receiving authentication result information returned in response to said authentication information;

controlling a lock to unlock a relevant movable body apparatus when authentication result information received at said step of receiving authentication result information indicates successful authentication;

detecting a current position at a specified time interval; and

transmitting information indicating a current position each time said current position is detected at said step of detecting a current position, wherein

said movable body management apparatus comprises the steps of:

receiving said authentication information from said movable body apparatus;
transmitting an authentication result corresponding to said authentication information received at said step of receiving authentication information to said movable body apparatus;

receiving said current positional information from said movable body apparatus;
measuring mileage of said movable body apparatus by using said current positional information received at said step of receiving a current position;

measuring a driving time of said movable body apparatus according to said current positional information received at said step of receiving a current position;

calculating a fee of said movable body apparatus according to said mileage received at said step of measuring mileage and said driving time received at said step of measuring a driving time; and

performing settlement processing for a fee of said movable body apparatus based on a result of said step of calculating a fee.

58. The movable body rental method according to claim 57, wherein

said movable body apparatus has a step of accepting input of payable information;

said step of transmitting authentication information transmits payable information accepted at said step of accepting payable information as said authentication information to said movable body management apparatus;

said step of controlling a lock releases it when said step of receiving

authentication result information receives said permission information as said authentication result information from said movable body management apparatus;

said movable body management apparatus has a step of determining whether payment is possible based on said payable information as said authentication information received at said step of receiving authentication information from said movable body apparatus; and

said step of transmitting authentication result information transmits permission information as said authentication result information to said movable body apparatus when said determination step determines that payment is possible.

59. The movable body rental method according to claim 58, wherein

said movable body management apparatus comprises the steps of:

receiving an authentication request including identification information about a user transmitted via a mobile communication terminal owned by said user of said movable body apparatus; and

performing authentication processing based on said identification information included in said authentication request received at said step of receiving an authentication request, wherein

said step of transmitting authentication result information of said movable body management apparatus transmits said permission information when said step of performing authentication processing grants authentication and said determination step determines payment is possible.

60. The movable body rental method according to claim 57, wherein said movable body management apparatus comprises the steps of:
receiving an authentication request including identification information about a user transmitted via a mobile communication terminal owned by said user of said movable body apparatus; and

performing authentication processing based on said identification information included in said authentication request received at said step of receiving an authentication request, wherein

said step of transmitting authentication result information of said movable body management apparatus transmits said permission information when said step of performing authentication processing grants authentication.

61. The movable body rental method according to claim 57, wherein said step of calculating a fee for said movable body management apparatus differentiates said fee according to a position where said movable body apparatus is returned.

62. The movable body rental method according to claim 61, wherein said step of calculating a fee for said movable body management apparatus sets a higher fee when said movable body apparatus is returned to a position different from a predetermined return position than when it is returned to said return position.

63. The movable body rental method according to claim 57, wherein said step of calculating a fee for said movable body management apparatus calculates said fee based on said driving time and an average driving time which is determined according

to said mileage.

64. A movable body management method of managing a plurality of movable body apparatuses by a movable body management apparatus, wherein

said movable body apparatus comprises the steps of:

measuring a current position; and

transmitting information indicating said current position measured at said step of measuring a current position, and wherein

said management apparatus comprises the steps of:

receiving information which is transmitted from said movable body apparatus and indicates a current position of said movable body apparatus;

receiving a provision request for positional information about a nearby movable body transmitted from a user's mobile communication terminal; and

transmitting information indicating a current position of a nearby movable body apparatus to said mobile communication terminal transmitting said provision request when said step of receiving a provision request receives said provision request.

65. The movable body management method according to claim 64, wherein

said step of transmitting positional information transmits information indicating a current position of said movable body apparatus and movable body retrieval information for retrieving said movable body apparatus; and

a user who wants to use said movable body apparatus can transmit movable body retrieval information for retrieving said movable body apparatus to said movable

body apparatus via a mobile communication terminal owned by said user, and wherein
said movable body apparatus comprises the steps of:
receiving said movable body retrieval information; and
notifying said user of a local apparatus position when said step of receiving
retrieval information receives movable body retrieval information addressed to the
local apparatus.

66. The movable body management method according to claim 64, wherein
said mobile communication terminal used by a user who wants to use said
movable body apparatus comprises:

a step of detecting a current position of a local apparatus; and
a transmission result for transmitting said current position detected at said step
detecting a current position, wherein

said step of receiving a current position in said movable body management
apparatus is also capable of receiving said current position from said mobile
communication terminal, and wherein

said step of transmitting positional information retrieves a movable body nearest
to said mobile communication terminal based on said current position of said mobile
communication terminal received at said step of receiving a current position.

67. The movable body management method according to claim 64, wherein
said movable body apparatus comprises the steps of:
transmitting authentication information to said movable body management

apparatus;

receiving authentication result information returned in response to said authentication information; and

controlling a lock to unlock a relevant movable body apparatus when authentication result information received at said step of receiving authentication result information indicates successful authentication, and wherein

said movable body management apparatus comprises the steps of:

receiving said authentication information from said movable body apparatus;

and

transmitting authentication result information corresponding to said authentication information received at said step of receiving authentication information to said movable body apparatus.

68. The movable body management method according to claim 64, wherein

said movable body apparatus has a step of accepting input of payable information;

said step of transmitting authentication information transmits said payable information accepted at said step of accepting payable information as said authentication information to said movable body management apparatus;

said step of controlling a lock releases it when said step of receiving authentication result information receives said permission information as said authentication result information from said movable body management apparatus;

said movable body management apparatus has a step of determining whether payment is possible based on said payable information as said authentication information received at said step of receiving authentication information from said movable body apparatus; and

said step of transmitting authentication result information transmits permission information as said authentication result information to said movable body apparatus when said determination step determines that payment is possible.

69. The movable body management method according to claim 68, wherein said movable body management apparatus comprises the steps of:

receiving an authentication request including identification information about a user transmitted via a mobile communication terminal owned by said user of said movable body apparatus; and

performing authentication processing based on said identification information included in said authentication request received at said step of receiving an authentication request, wherein

said step of transmitting authentication result information of said movable body management apparatus transmits said permission information when said step of performing authentication processing grants authentication and said determination step determines payment is possible.

70. The movable body management method according to claim 67, comprising the steps of:

receiving an authentication request including identification information about a user transmitted via a mobile communication terminal owned by said user of said movable body apparatus; and

performing authentication processing based on said identification information included in said authentication request received at said step of receiving an authentication request, wherein

said step of transmitting authentication result information of said movable body management apparatus transmits said permission information when said step of performing authentication processing grants authentication.

71. A method of managing a movable body apparatus in a movable body rental system comprising a movable body apparatus to be rented and a movable body management apparatus to manage said movable body apparatus, said method comprising the steps of:

transmitting authentication information to said movable body management apparatus;

receiving authentication result information returned in response to said authentication information;

controlling a lock means for preventing the use of said movable body apparatus according to said authentication result information received at said step of receiving authentication result information;

measuring mileage;

transmitting information indicating mileage measured at said step of measuring mileage to said movable body management apparatus;

measuring a driving time; and

transmitting information indicating the driving time measured at said step of measuring a driving time to said movable body management apparatus.

72. The movable body apparatus management method according to claim 71, comprising the step of:

accepting input of payable information, wherein

said step of transmitting authentication information transmits said payable information accepted at said step of accepting payable information as said authentication information to said movable body management apparatus, and wherein said step of controlling a lock controls said lock means to release a lock when said step of receiving authentication result information receives said permission information as said authentication result information from said movable body management apparatus.

73. A method of managing a movable body apparatus in a movable body rental system comprising a movable body apparatus to be rented and a movable body management apparatus to manage said movable body apparatus, said method comprising the steps of:

transmitting authentication information to said movable body management apparatus;

receiving authentication result information returned in response to said

authentication information; and

controlling a lock means for preventing the use of said movable body apparatus according to said authentication result information received at said step of receiving authentication result information;

detecting a current position at a specified time interval; and

transmitting information indicating a current position each time said current position is detected at said step of detecting a current position.

74. The movable body apparatus management method according to claim 73, comprising the step of:

accepting input of payable information, wherein

said step of transmitting authentication information transmits said payable information accepted at said step of accepting payable information as said authentication information to said movable body management apparatus, and wherein said step of controlling a lock controls said lock means to release a lock when said step of receiving authentication result information receives said permission information as said authentication result information from said movable body management apparatus.

75. A movable body management method for a movable body management apparatus in a movable body rental system comprising a movable body apparatus to be rented and said movable body management apparatus to manage said movable body apparatus, said method comprising the steps of:

receiving authentication information from said movable body apparatus;

transmitting authentication result information corresponding to said authentication information received at said step of receiving authentication information to said movable body apparatus;

receiving information indicating said mileage from said movable body apparatus;

receiving information indicating said driving time from said movable body apparatus;

calculating a fee of said movable body apparatus according to said mileage received at said step of receiving distance information and said driving time received at said step of receiving time information; and

performing settlement processing for a fee of said movable body apparatus based on a result of said step of calculating a fee.

76. The movable body management method according to claim 75, comprising the step of:

determining whether payment is possible based on payable information as said authentication information received at said step of receiving authentication information from said movable body apparatus, wherein

said step of transmitting authentication result information transmits permission information as said authentication result information to said movable body apparatus when said determination step determines that payment is possible.

77. The movable body management method according to claim 76, comprising the

steps of:

receiving an authentication request including identification information about a user transmitted via a mobile communication terminal owned by said user of said movable body apparatus; and

performing authentication processing based on said identification information included in said authentication request received at said step of receiving an authentication request, wherein

said step of transmitting authentication result information transmits said permission information when said step of performing authentication processing grants authentication and said determination step determines payment is possible.

78. The movable body management method according to claim 75, comprising the steps of:

receiving an authentication request including identification information about a user transmitted via a mobile communication terminal owned by said user of said movable body apparatus; and

performing authentication processing based on said identification information included in said authentication request received at said step of receiving an authentication request, wherein

said step of transmitting authentication result information transmits said permission information when said step of performing authentication processing grants authentication.

79. The movable body management method according to claim 75, wherein said step of calculating a fee differentiates said fee according to a position where said movable body apparatus is returned.

80. The movable body management method according to claim 79, wherein said step of calculating a fee sets a higher fee when said movable body apparatus is returned to a position different from a predetermined return position than when it is returned to said return position.

81. The movable body management method according to claim 75, wherein said step of calculating a fee calculates said fee based on said driving time and an average driving time which is determined according to said mileage.

82. A movable body management method for a movable body management apparatus in a movable body rental system comprising a movable body apparatus to be rented and said movable body management apparatus to manage said movable body apparatus, said method comprising the steps of:

receiving authentication information from said movable body apparatus;

transmitting an authentication result corresponding to said authentication information received at said step of receiving authentication information to said movable body apparatus;

receiving said current positional information from said movable body apparatus;

measuring mileage of said movable body apparatus by using said current positional information received at said step of receiving a current position;

measuring a driving time of said movable body apparatus according to said current positional information received at said step of receiving a current position;

calculating a fee of said movable body apparatus according to said mileage received at said step of measuring mileage and said driving time received at said step of measuring a driving time; and

performing settlement processing for a fee of said movable body apparatus based on a result of said step of calculating a fee.

83. The movable body management method according to claim 82, comprising the step of:

determining whether payment is possible based on payable information as said authentication information received at said step of receiving authentication information from said movable body apparatus, wherein

said step of transmitting authentication result information transmits permission information as said authentication result information to said movable body apparatus when said determination step determines that payment is possible.

84. The movable body management method according to claim 83, comprising the steps of:

receiving an authentication request including identification information about a user transmitted via a mobile communication terminal owned by said user of said movable body apparatus; and

performing authentication processing based on said identification information

included in said authentication request received at said step of receiving an authentication request, wherein

said step of transmitting authentication result information of said movable body management apparatus transmits said permission information when said step of performing authentication processing grants authentication and said determination step determines payment is possible.

85. The movable body management method according to claim 82, comprising the steps of:

receiving an authentication request including identification information about a user transmitted via a mobile communication terminal owned by said user of said movable body apparatus; and

performing authentication processing based on said identification information included in said authentication request received at said step of receiving an authentication request, wherein

said step of transmitting authentication result information transmits said permission information when said step of performing authentication processing grants authentication.

86. The movable body management method according to claim 82, wherein said step of calculating a fee differentiates said fee according to a position where said movable body apparatus is returned.

87. The movable body management method according to claim 86, wherein said

step of calculating a fee sets a higher fee when said movable body apparatus is returned to a position different from a predetermined return position than when it is returned to said return position.

88. The movable body management method according to claim 82, wherein said step of calculating a fee calculates said fee based on said driving time and an average driving time which is determined according to said mileage.

89. A method of managing said movable body apparatus in a movable body management system comprising a movable body apparatus to be rented and a movable body management apparatus to manage said movable body apparatus, said movable body management apparatus having:

receiving movable body retrieval information from a user's mobile communication terminal;

notifying said user of a local apparatus position when said step of receiving retrieval information receives movable body retrieval information addressed to the local apparatus.

90. The movable body apparatus management method according to claim 89, comprising the step of:

transmitting authentication information to said movable body management apparatus;

receiving authentication result information returned in response to said authentication information;

receiving permission information from said movable body management apparatus; and

controlling lock means to release a lock for preventing the use of said movable body apparatus when said step of receiving permission information receives said permission information.

91. The movable body apparatus management method according to claim 91, comprising the step of:

accepting input of payable information, wherein

said step of transmitting authentication information transmits said payable information accepted at said step of accepting payable information as said authentication information to said movable body management apparatus, and wherein said step of controlling a lock controls said lock means to release a lock when said step of receiving authentication result information receives said permission information as said authentication result information from said movable body management apparatus.

92. A movable body management method for a movable body management apparatus in a movable body management system comprising a movable body apparatus to be rented and said movable body management apparatus to manage said movable body apparatus, said method comprising the steps of:

receiving a current position of said movable body apparatus transmitted from said movable body apparatus;

receiving a provision request for positional information about a nearby movable

body transmitted from a user's mobile communication terminal; and

transmitting information indicating a current position of a nearby movable body apparatus to said mobile communication terminal transmitting said provision request when said step of receiving a provision request receives said provision request.

93. The movable body management method according to claim 92, wherein said step of transmitting positional information transmits information indicating a current position of said movable body apparatus and movable body retrieval information for retrieving said movable body apparatus.

94. The movable body management method according to claim 92, wherein said step of receiving a current position is also capable of receiving said current position from a mobile communication terminal used by a user who wants to use said movable body apparatus; and

said step of transmitting positional information retrieves a movable body nearest to said mobile communication terminal based on said current position of said mobile communication terminal received at said step of receiving a current position.

95. The movable body management method according to claim 92, comprising the steps of:

receiving said authentication information from said movable body apparatus;
and

transmitting authentication result information corresponding to said authentication information received at said step of receiving authentication

information to said movable body apparatus.

96. The movable body management method according to claim 95, comprising the step of:

determining whether payment is possible based on said payable information as said authentication information received at said step of receiving authentication information from said movable body apparatus, wherein

said step of transmitting authentication result information transmits permission information as said authentication result information to said movable body apparatus when said determination step determines that payment is possible.

97. The movable body management method according to claim 96, comprising the steps of:

receiving an authentication request including identification information about a user transmitted via a mobile communication terminal owned by said user of said movable body apparatus; and

performing authentication processing based on said identification information included in said authentication request received at said step of receiving an authentication request, wherein

said step of transmitting authentication result information of said movable body management apparatus transmits said permission information when said step of performing authentication processing grants authentication and said determination step determines payment is possible.

98. The movable body management method according to claim 95, comprising the steps of:

receiving an authentication request including identification information about a user transmitted via a mobile communication terminal owned by said user of said movable body apparatus; and

performing authentication processing based on said identification information included in said authentication request received at said step of receiving an authentication request, wherein

said step of transmitting authentication result information of said movable body management apparatus transmits said permission information when said step of performing authentication processing grants authentication.

99. A computer-readable recording medium to record a program executed on a computer for a movable body apparatus in a movable body rental system comprising a movable body apparatus to be rented and a movable body management apparatus to manage said movable body apparatus, said recording medium configured to record a program for executing the steps of:

transmitting authentication information to said movable body management apparatus;

receiving authentication result information returned in response to said authentication information;

controlling a lock means for preventing the use of said movable body apparatus

according to said authentication result information received at said step of receiving authentication result information;

measuring mileage;

transmitting information indicating mileage measured at said step of measuring mileage to said movable body management apparatus;

measuring a driving time; and

transmitting information indicating the driving time measured at said step of measuring a driving time to said movable body management apparatus.

100. The computer-readable recording medium according to claim 99, said recording medium configured to record a program for executing the step of:

accepting input of payable information, wherein

said step of transmitting authentication information transmits said payable information accepted at said step of accepting payable information as said authentication information to said movable body management apparatus; and

said step of controlling a lock controls said lock means to release a lock when said step of receiving authentication result information receives said permission information as said authentication result information from said movable body management apparatus.

101. A computer-readable recording medium to record a program executed on a computer for a movable body apparatus in a movable body rental system comprising a movable body apparatus to be rented and a movable body management apparatus to

manage said movable body apparatus, said recording medium configured to record a program for executing the steps of:

- transmitting authentication information to said movable body management apparatus;

- receiving authentication result information returned in response to said authentication information;

- controlling a lock means for preventing the use of said movable body apparatus according to said authentication result information received at said step of receiving authentication result information;

- detecting a current position at a specified time interval; and

- transmitting information indicating a current position each time said current position detection means detects it.

102. The computer-readable recording medium according to claim 101, said recording medium configured to record a program for executing the step of:

- accepting input of payable information, wherein

- said step of transmitting authentication information transmits said payable information accepted at said step of accepting payable information as said authentication information to said movable body management apparatus; and

- said step of controlling a lock controls said lock means to release a lock when said step of receiving authentication result information receives said permission information as said authentication result information from said movable body

management apparatus.

103. A computer-readable recording medium to record a program executed on a computer for a movable body management apparatus in a movable body rental system comprising a movable body apparatus to be rented and said movable body management apparatus to manage said movable body apparatus, said recording medium configured to record a program for executing the steps of:

receiving authentication information from said movable body apparatus;

transmitting authentication result information corresponding to said authentication information received at said step of receiving authentication information to said movable body apparatus;

receiving information indicating said mileage from said movable body apparatus;

receiving information indicating said driving time from said movable body apparatus;

calculating a fee of said movable body apparatus according to said mileage received by said distance information reception means and said driving time received by said time information reception means; and

performing settlement processing for a fee of said movable body apparatus based on a result of said step of calculating a fee.

104. The computer-readable recording medium according to claim 103, said recording medium configured to record a program for executing the step of:

determining whether payment is possible based on payable information as said authentication information received at said step of receiving authentication information from said movable body apparatus, wherein

said step of transmitting authentication result information transmits permission information as said authentication result information to said movable body apparatus when said determination step determines that payment is possible.

105. The computer-readable recording medium according to claim 104, said recording medium configured to record a program for executing the steps of:

receiving an authentication request including identification information about a user transmitted via a mobile communication terminal owned by said user of said movable body apparatus; and

performing authentication processing based on said identification information included in said authentication request received at said step of receiving an authentication request, wherein

said step of transmitting authentication result information transmits said permission information when said step of performing authentication processing grants authentication and said determination step determines payment is possible.

106. The computer-readable recording medium according to claim 103, said recording medium configured to record a program for executing the steps of:

receiving an authentication request including identification information about a user transmitted via a mobile communication terminal owned by said user of said

movable body apparatus; and

performing authentication processing based on said identification information included in said authentication request received at said step of receiving an authentication request, wherein

said step of transmitting authentication result information transmits said permission information when said step of performing authentication processing grants authentication.

107. The computer-readable recording medium according to claim 103, said recording medium configured to record a program in which said step of calculating a fee differentiates said fee according to a position where said movable body apparatus is returned.

108. The computer-readable recording medium according to claim 107, said recording medium configured to record a program in which said step of calculating a fee sets a higher fee when said movable body apparatus is returned to a position different from a predetermined return position than when it is returned to said return position.

109. The computer-readable recording medium according to claim 103, said recording medium configured to record a program in which said step of calculating a fee calculates said fee based on said driving time and an average driving time which is determined according to said mileage.

110. A computer-readable recording medium to record a program executed on a

computer for a movable body management apparatus in a movable body rental system comprising a movable body apparatus to be rented and said movable body management apparatus to manage said movable body apparatus, said recording medium configured to record a program for executing the steps of:

receiving authentication information from said movable body apparatus;

transmitting an authentication result corresponding to said authentication information received at said step of receiving authentication information to said movable body apparatus;

receiving said current positional information from said movable body apparatus;

measuring mileage of said movable body apparatus by using said current positional information received at said step of receiving a current position;

measuring a driving time of said movable body apparatus according to said current positional information received at said step of receiving a current position;

calculating a fee of said movable body apparatus according to said mileage received at said step of measuring mileage and said driving time received at said step of measuring a driving time; and

performing settlement processing for a fee of said movable body apparatus based on a result of said step of calculating a fee.

111. The computer-readable recording medium according to claim 110, said recording medium configured to record a program for executing the step of:

determining whether payment is possible based on payable information as said

authentication information received at said step of receiving authentication information from said movable body apparatus, wherein

said step of transmitting authentication result information transmits permission information as said authentication result information to said movable body apparatus when said determination step determines that payment is possible.

112. The computer-readable recording medium according to claim 111, recording a program for executing the steps of:

receiving an authentication request including identification information about a user transmitted via a mobile communication terminal owned by said user of said movable body apparatus; and

performing authentication processing based on said identification information included in said authentication request received at said step of receiving an authentication request, wherein

said step of transmitting authentication result information of said movable body management apparatus transmits said permission information when said step of performing authentication processing grants authentication and said determination step determines payment is possible.

113. The computer-readable recording medium according to claim 110, recording a program for executing the steps of:

receiving an authentication request including identification information about a user transmitted via a mobile communication terminal owned by said user of said

movable body apparatus; and

performing authentication processing based on said identification information included in said authentication request received at said step of receiving an authentication request, wherein

said step of transmitting authentication result information transmits said permission information when said step of performing authentication processing grants authentication.

114. The computer-readable recording medium according to claim 110, said recording medium configured to record a program in which said step of calculating a fee differentiates said fee according to a position where said movable body apparatus is returned.

115. The computer-readable recording medium according to claim 114, said recording medium configured to record a program in which said step of calculating a fee sets a higher fee when said movable body apparatus is returned to a position different from a predetermined return position than when it is returned to said return position.

116. The computer-readable recording medium according to claim 110, said recording medium configured to record a program in which said step of calculating a fee calculates said fee based on said driving time and an average driving time which is determined according to said mileage.

117. A computer-readable recording medium to record a program executed on a

computer for a movable body apparatus in a movable body management system comprising a movable body apparatus to be rented and a movable body management apparatus to manage said movable body apparatus, said recording medium configured to record a program for executing the steps of:

receiving movable body retrieval information from a user's mobile communication terminal; and

notifying said user of a local apparatus position when said step of receiving retrieval information receives movable body retrieval information addressed to the local apparatus.

118. The computer-readable recording medium according to claim 117, said recording medium configured to record a program for executing the steps of:

transmitting authentication information to said movable body management apparatus;

receiving authentication result information returned in response to said authentication information;

receiving permission information from said movable body management apparatus; and

controlling lock means to release a lock for preventing the use of said movable body apparatus when said step of receiving permission information receives said permission information.

119. The computer-readable recording medium according to claim 118, said

recording medium configured to record a program for executing the step of:

accepting input of payable information, wherein

said step of transmitting authentication information transmits said payable information accepted at said step of accepting payable information as said authentication information to said movable body management apparatus; and

said step of controlling a lock controls said lock means to release a lock when said step of receiving authentication result information receives said permission information as said authentication result information from said movable body management apparatus.

120. A computer-readable recording medium to record a program executed on a computer for a movable body management apparatus in a movable body management system comprising a movable body apparatus to be rented and said movable body management apparatus to manage said movable body apparatus, said recording medium configured to record a program for executing the steps of:

receiving a current position of said movable body apparatus transmitted from said movable body apparatus;

receiving a provision request for positional information about a nearby movable body transmitted from a user's mobile communication terminal; and

transmitting information indicating a current position of a nearby movable body apparatus to said mobile communication terminal transmitting said provision request when said step of receiving a provision request receives said provision request.

121. The computer-readable recording medium according to claim 120, said recording medium configured to record a program in which said step of transmitting positional information transmits information indicating a current position of said movable body apparatus and movable body retrieval information for retrieving said movable body apparatus.

122. The computer-readable recording medium according to claim 120, said recording medium configured to record a program in which

said step of receiving a current position is also capable of receiving said current position from a mobile communication terminal used by a user who wants to use said movable body apparatus; and

said step of transmitting positional information retrieves a movable body nearest to said mobile communication terminal based on said current position of said mobile communication terminal received at said step of receiving a current position.

123. The computer-readable recording medium according to claim 120, said recording medium configured to record a program for executing the steps of:

receiving said authentication information from said movable body apparatus;
and

transmitting authentication result information corresponding to said authentication information received at said step of receiving authentication information to said movable body apparatus.

124. The computer-readable recording medium according to claim 123, said

recording medium configured to record a program for executing the step of:

determining whether payment is possible based on payable information as said authentication information received at said step of receiving authentication information from said movable body apparatus, wherein

said step of transmitting authentication result information transmits permission information as said authentication result information to said movable body apparatus when said determination step determines that payment is possible.

125. The computer-readable recording medium according to claim 120, recording a program for executing the steps of:

receiving an authentication request including identification information about a user transmitted via a mobile communication terminal owned by said user of said movable body apparatus; and

performing authentication processing based on said identification information included in said authentication request received at said step of receiving an authentication request, wherein

said step of transmitting authentication result information of said movable body management apparatus transmits said permission information when said step of performing authentication processing grants authentication and said determination step determines payment is possible.

126. The computer-readable recording medium according to claim 120, recording a program for executing the steps of:

receiving an authentication request including identification information about a user transmitted via a mobile communication terminal owned by said user of said movable body apparatus; and

performing authentication processing based on said identification information included in said authentication request received at said step of receiving an authentication request, wherein

said step of transmitting authentication result information of said movable body management apparatus transmits said permission information when said step of performing authentication processing grants authentication.